

# STRUCTURĂL ENGINEER

# Below Slab Moisture Protection: Engineering Theory and Design

A technical, educational, in-depth look at below slab moisture protection and its effect on floor covering failures, alkaline efflorescence, alkali-silica reaction and mold & mildew. The seminar examines capillary breaks, vapor retarders, sand/blotter layers, water-cement ratios, moisture testing, and floor coverings. The seminar examines the mechanism by which water-vapor, not liquid water, is causing problems in all climates. Current recommendations from ACI, PCA, and ASTM will also be discussed.

After attending the session Engineers will know how to design an overall system to help prevent moisture related problems such as: floor covering failures, mold and mildew issues, concrete drying concerns, and much more. Attendees will learn about the most recent standards and industry-expert recommendations in the Vapor Barrier industry. In addition, attendees will know and be able to explain the difference between a Vapor Retarder and a Vapor Barrier and know how to specify/recommend each.



Mike McCarthy recently accepted a position as Stego Industries' Houston and S. Louisiana Regional Manager, and recently relocated to Houston with his wife and 1-year-old daughter. For 10 years, Mike has been working with Stego Industries in a variety of positions, including the successful management of the following territories – Southern California, Northern California, Arizona, Nevada, New Mexico, Hawaii, and New Zealand. Mike is a long time member of the Construction Specification Institute (CSI), a Certified Construction Product Representative (CCPR), and holds a Masters in Business Administration (MBA) from Gonzaga University. He has given hundreds of accredited seminars to architects, engineers, inspectors, homebuilders, and contractors throughout the country. Additionally, Mike has extensive field experience working with a variety of trades and

### WHEN:

March 17, 2016 11:30 am Lunch 12:00 pm Program

## WHERE:

Pappas Bar-B-Q 7007 Hwy, 59 South Houston, TX 77074 (713) 772-4557

# MEETING INFO COST:

Members: \$25.00 Non-members: \$35.00 Student members & Non dinner guests \$10.00

### RSVP:

Click Here to register online. The deadline is 12:00pm, the Tuesday before

# UPCOMING MEETINGS

April 21, 2016 TBD

May 19, 2016 TBD

## President's Corner

## Tan Tran, PE

"STAYING RELEVANT"

I have decided to talk about this topic this month because of the current state of the chapter. The chapter's meetings have suffered a steady decline of attendance as of late despite our efforts to promote and maintain the attending members' interests. As with life in general, one's being is to serve a purpose. As life progresses, those purposes will change and eventually may cease altogether. If we cannot maintain that purpose and staying relevant then our existence is jeopardized. I am wondering if our Chapter is at such point.

As I know, the Association's purpose and thus the Chapter's, has been and still is to provide a venue for Structural engineers to gather and share knowledge, to learn about the profession in order to further one's own competency, and to network and promote the profession to the general public.

I believe that we are still doing well in sharing the knowledge with our monthly meeting presentations. However, the benefit of providing an avenue for members to earn Continuing Education credits to fulfill license registration requirements may have been lessened. We do have to compete with many more learning sources, which are much more convenient and more economical.

I still see many members who attend the monthly meetings regularly. I still see new members joining each month. Thus, I believe that we are still providing a place for members to network, to meet new people and maintain the relationships that they have had.

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# President's Corner (continued) Tan Tran, PE

It is the last purpose that I think we have not done so well, in fact, none at all; we have not been promoting the structural engineering profession to the public. It is an area in which we can do more.

One way to do that is to make presentations to students in the area that the Chapter is located. Chapter members can make presentations can be made to middle school students, to high school students, and to community college students.

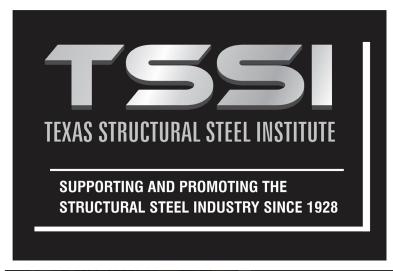
We can provide these presentations to give the students an understanding of the multiple branches of structural engineering that are available. We can help them to understand what it means to be a structural engineer. We can introduce them to the feelings of fulfillment and pride of achievement when one sees their project come into being.

Having a purpose, maintaining your relevance, is after all, one of our main purposes in life. Our chapter's survival is certainly dependent on it. I would certainly welcome your thoughts, comments and efforts.

See you at our monthly meeting!



Tan Tran, PE Houston@seaot.org tan.tran@cardno.com





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# Secretary's Corner

Chris Hill, PE

Hello All!

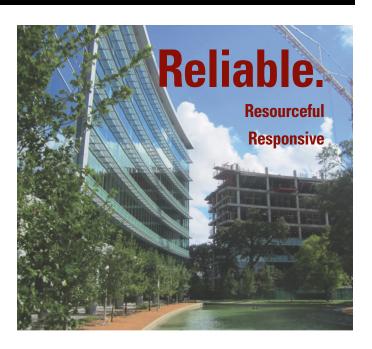
Well we are already in March so you know what that means, the college basketball tournament and the rodeo! I hope you all enjoy both this year, especially with our city hosting the Final Four to start in April.

Last month we had our second meeting of the year which was held at HESS from 6 to 8pm (please be aware that our next meeting is during the lunch hour and will not be at HESS). Chapter President Tan Tran was not able to attend last month's meeting. In his absence Vice President Rick Miles ran the meeting. Rick started the meeting by encouraging those in attendance to help with increasing membership and attendance. He then introduced the launch of the new SEAoT Houston Chapter website (seaothouston.org).

Following the website introduction, the Young Members Chair, Chris Hill, provided the group with an update on the next young member event. The next event will be a Happy Hour in April and a sponsor has been determined. Rick Miles then turned the floor over to Lee Walden who gave an update on what SEA is doing at the state level.

Major items that Mr. Walden addressed were increasing benefits for members, creating documents for wind engineering and engaging with the public, and the continued search for a young member chair at the State Chapter. Following Mr. Walden's address Rick gave the group an update on upcoming chapter meetings and some of the programming for the year.

Rick then introduced our speaker for the evening, Narendra Gosain, Ph.D., P.E., Senior Consultant in the Diagnostics Services Group of Walter P Moore. Dr. Gosain's presentation titled "Failure and Forensic Investigation of Non-Building Structures" discussed some of the typical reasons for failures of nonbuilding structures. Of particular interest were the reasons for failure based on the design, construction and the owner. The reasons Dr. Gosain gave are listed on the next page:



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Nicholas Souza is responsible for all content in this advertisement.

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# Secretary's Corner (continued)

## Chris Hill, PE

8 Causes of Structural Failure: Design

- 1. Lack of communication
- 2. Design Errors
- 3. Lack of understanding of imposed loads
- 4. Complexity of codes
- 5. The GIGO syndrome in the electronic age
- 6. Compressed time for design
- 7. Lack of clarity of drawings
- 8. Professional ethics

4 Causes of Structural Failure: Construction

- 1. Pour construction practices
- 2. Inadequate preparation and review of shop drawings
- 3. Compressed time for construction
- 4. Professional ethics

3 Causes of Structural Failure: Owner

- 1. Imposing unreasonable time constraints on the design and construction teams
- 2. Tight squeeze on fees for design
- 3. Deferred maintenance.

Dr. Gosain ended by presenting two case studies of failures that he has worked on. The first being an overhead bridge crane and the second being a sign support. Each had design flaws that were determined by Dr. Gosain and his group.

Until next time,

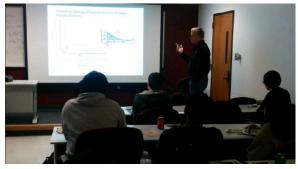
Chris.



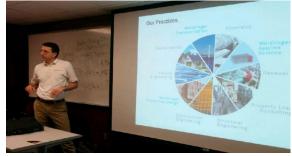
# Texas A&M Student Chapter President

## Natasha C. Boger

The second meeting for TAMU's SEAoT student chapter for the spring semester was held on Feb 11th. Thornton Tomasetti, an engineering practice out of Austin, TX sponsored the meeting and presented some of the firm's most interesting structural engineering marvels.



Both Mr. Joel Barron and Mr. Jim Wesevich represented Thornton Tomasetti at the event, and answered many of the student's questions regarding their careers and professional development.



TAMU's SEAoT officers met with various faculty candidates over breakfast throughout the month of February. The officers spoke with the candidates about the purpose and mission of SEAoT and especially TAMU's student chapters.



The officers also volunteered at Texas A&M's largest open house, Aggieland Saturday, on February 13th. During the open house the officers spoke with potential civil engineering students about the benefits and contributions that civil engineers provide society.



Another engineering event within Texas A&M's Civil Engineering Department is Professional Day, February 23rd. This is an opportunity for undergraduate civil engineering students to talk with a few professional civil engineers about their careers in a panel discussion. Some of the SEAoT officers volunteered to help orchestrate this event.



# 2016 Officers and Directors

<u>Office</u>	<u>Name</u>	<u>Phone</u>	E-mail (click to send)
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Secretary	Jonathan Warshaw	713.868.1591	chris.hill@cardno.com
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Past President	Al Bustamante	832.467.2177	Al.Bustamante@walkerrestoration.com
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Chapter Director (15-16)	Steve Wilkerson	832.969.8641	stevew@ziasoftware.com
State Director (14-15)	Damon Brotherton	713.702.9973	d-brotherton@sbcglobal.net
State Director (15-16)	Bob Lanser	281.543.0305	boblanser@aol.com
Alternate State Director	Joe Kallaby	281.584.9300	osi-jk@swbell.net

## 2016 Committee Chairpersons

Committee	Chair	Phone	E-mail (click to send)
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